3.1 Surface Danger Zone for the Multi-Purpose Training Range (MPTR), the Infantry Platoon Battle Course (IPBC), and the Infantry Squad Battle Course (ISBC) Training Ranges

USAG-AK has proposed to construct three ranges within Fort Wainwright's Yukon Training Area; a multi-purpose training range (MPTR), an Infantry Platoon Battle Course (IPBC), and an Infantry Squad Battle Course (ISBC). These training ranges will have a combined Surface Danger Zone (SDZ) of approximately 3137 acres. A surface danger zone is the portion of a range which may be directly and physically impacted by weapons firing. The SDZ, which encompasses the training ranges, is located east of Eielson Air Force Base in Fort Wainwright's Yukon Training Area (Figure 22).

The multi-purpose training range (MPTR) would entail construction of a control tower, an after-action-review building, warm-up facility, ammunition break-down facility, vehicle maintenance facility, vehicle holding area, gravel training roads, targets, arctic latrines and utilities. The Infantry Squad Battle Course (ISBC) would include a breach facility, an urban assault course and a shoot house. Weapons fired on this course would use small arms, non-dudded ammunition, with small explosive charges used at the breach facility.

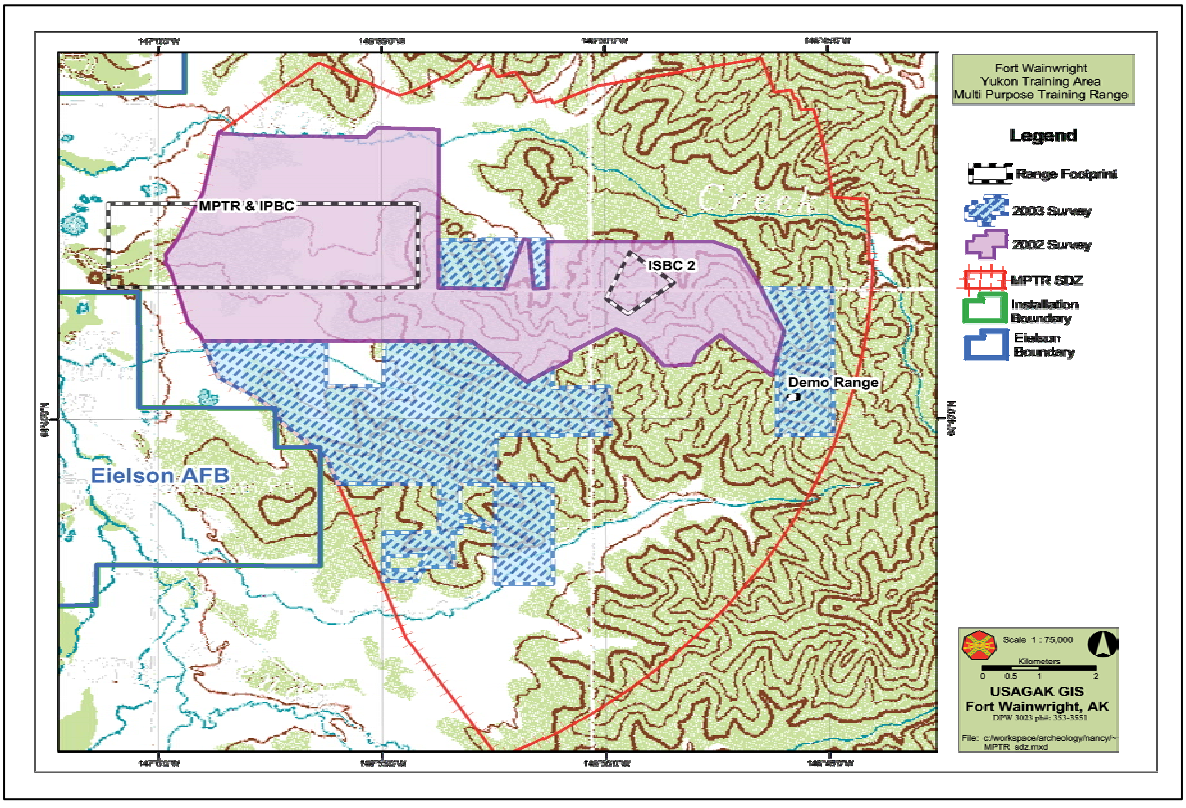

Figure 22. Completed archaeology surveys of the surface danger zone

The (IPBC) is a larger-scale course designed for combat realism and larger unit (platoon) training. Weapons fired on this course would be the same as those on the ISBC. The ISBC and the IPBC would include an after-action review facility to allow the control, monitoring, and reviewing of simulations and training operations. Supporting facilities for both courses would

also include communications, electric service, an ammunition breakdown facility, control tower, warm-up facility, crushed aggregate access roads and parking areas, and self-contained dry-flush, arctic latrines.

Several known prehistoric archeological sites are located within the proposed Surface Danger Zone: FAI-157, XBD-095, and XBD-104. Additionally, site XBD-105 is located approximately 1km north of the SDZ. In 2002, sites XBD-157 and XBD-104 were re-located but no additional cultural material was identified. In 2003, reconnaissance efforts to relocate site XBD-095 were unsuccessful. All of these sites are located outside the footprints of the proposed range construction projects.

Survey and Field Methods

The immediate footprints of the ranges were surveyed in 2002 and the SHPO concurred with the findings of No Historic Properties Affected[1]. A partial Section 106 (NHPA) review of the surface danger zone was conducted in 2003 and is expected to be completed in 2004. An archaeological survey crew of four archaeologists employed by CEMML conducted a pedestrian survey of a portion of the proposed Surface Danger Zone under the supervision of Fort Wainwright archaeologist Nancy Fichter.

The SDZ for the three training ranges covers approximately 3137 acres in an area east of Eielson Air Force Base in Fort Wainwright's Yukon Training Area. The project APE encompasses an area larger than the proposed range firing fan footprint, in order to ensure coverage of areas that may incur secondary impacts during training use. Terrain that exceeded slopes of 40° was eliminated from survey, as no impacts will occur on slopes greater than 30°. Additionally, every effort was made to survey low-lying wet areas, but some wetlands were eliminated from survey coverage, due to inaccessibility, lack of visibility, and low probability of containing intact cultural deposits.

Parallel pedestrian transects spaced at approximately 20m intervals were walked either north-south or east-west, depending on terrain and access. Transect survey units were partitioned according to existing roads and trails where possible. When existing roads did not provide for practical unit boundaries, a one square kilometer work unit was defined.

Sub-surface testing was conducted in areas considered to be high probability, based on previous survey and research (e.g., lake margins, glacial moraines and ridges, river/stream confluences) during initial review of the proposed project area, and as determined by the supervising archaeologist and field crew leader based on survey findings. Shovel tests were approximately 40cm x 40cm, and frequently did not go below a depth of 70cm. Levels were dug in 7cm intervals, unless clear stratigraphy dictated otherwise, and soils were screened through ¼" hardware cloth.

Findings

Unidentified Iron Cylinder

This iron cylindrical object was identified 0.5km from Bravo Battery, 100ft from Quarry Road, and at an elevation of 175ft. It is approximately 10ft in length and two feet wide (Figures 23a and 23b). The object is hollow, completely sealed at both ends except for identical threaded fittings with a 3.14in circumference located at each end. Alders surrounding the object are

[1] MPTR finding of No Historic Properties Affected submitted to SHPO July 10, 2002 with SHPO concurrence received July 30, 2002. ISBC and IPBC finding of No Historic Properties Affected submitted to SHPO December 10, 2002 with SHPO concurrence received January 14, 2003.

approximately 23-30 years old. Attempts to identify this cylinder have been unsuccessful to date.

Figure 23a. Unidentified iron cylinder

Figure 23b.Threaded fitting of unidentified iron cylinder

Stout House

The remnants of a WWII stout house were identified north of Quarry road about 0.75km off an established ATV trail (Figures 24-27). This stout house is constructed of 2x4's with diagonal sheathing and remnants of 1.5 lb felt tarpaper covering the NE, SW, and SE exterior walls. The floor is 1x 3 ½" tongue-in-groove hardwood. The ceiling finish is 1x 5 ¼" – 5 ½" tongue-in-groove. The interior walls have fiberboard covering. The building is insulated with "aluminum foil insulation blanket type II double layer" (manufacturer's tag). The northeast interior wall is lined with plywood cubbyholes with names penciled on the framing. There are six square window openings that measure 40 inches square, two on the NE and SW walls, and one each on the SE and NW walls. The windows were single sash with some glazing still present. The building originally had a gabled roof that is now collapsed. It is partially covered with hardware cloth. There are two breaker boxes present with140 amp fuses and 125 amp fuses still attached to the SE wall. The electrical lines leading to the two fuse boxes are cloth covered wire cord. The structure rests on skids. The surrounding area in which the stout house is located was cleared at one time, but has since overgrown with alders, raspberry bushes, and various grasses. Two drums labeled 'dry cleaning solvent' have been modified for use as oil fuel tanks, possibly for a stove that is now gone.

The U.S. Army had the enormous task of adequately housing over 6 million troops by November 1944. Ninety five percent of the troops were housed in temporary buildings. Temporary structures were meant to last 5 to 20 years and were designed to be both economic and efficient. They used building technologies and materials such as plywood, hardboard, and sheetrock that were not widely used until after WWII.

Military Survival Tactics Training

A number of historic structures and buildings that pre-date or are related to World War II and Cold War era Army activities are located on or near Army lands (see e.g., Hollinger 2001; Shaw 2000). On Fort Wainwright, evidence of previous military survival tactics training was identified throughout the proposed project areas. Moderate disturbance from bunkers, foxholes and UXO (unexploded ammunitions) were observed during survey. Although there is a possibility that some of these features may date to training undertaken during World War II and the immediate post-war period, none of these features can be clearly assigned to a specific date. These sites,

> have … lost … aspects of integrity regarding design, setting, materials, workmanship, feeling and association over the years by neglect and/or direct actions resulting from operating a military base with changing physical requirements associated with execution of the primary mission. Such actions range among planned demolition of buildings judged to be excess property, inadvertent destruction of structures during new uses of the land such as for gravel pits, construction of new facilities which intrude into and radically change the site setting that existed during WWII, and direct efforts to "clean up" the sites when use stopped (Shaw 2000: 16).

Figure 24. Stout house

Figure 25. Collapsed roof of Stout house

Figure 26. Oil fuel tank near Stout house

Figure 27. Cubbyholes inside Stout house

Survivability tactics training is crucial to all branches of the armed forces. The purpose of such training includes protecting personnel, weapons, and supplies while deceiving the enemy.

> Available survivability tactics include building a good defense; employing frequent movement; using concealment, deception, and camouflage; and constructing fighting and protective positions for both individuals and equipment. The worth of survivability positions has been proven throughout history. Protective construction in the form of fighting and protective positions by itself cannot eliminate vulnerability on the modern battlefield. It can, however, limit personnel and equipment losses by reducing exposure to threat… (Department of Army, 1985)

Examples of the remains of military survival tactics training sites (Figures 28-31) that were identified during survey include a perimeter bunker and deliberate positions, such as one man fighting positions (fox holes).

Perimeter Bunker
The perimeter bunker structure located during survey activities stands at 9ft tall and 7ft wide and is constructed of milled lumber with modern nails. There is a ladder resting on one side that would have allowed access to a once existing platform. The structure is located 100m from Quarry Road on an over grown road.


Figure 28. Perimeter bunker


Figure 29. Ladder of Perimeter bunker

Bunkers are characteristically "larger fighting positions built for squad-size units who are required to remain in defensive positions for a longer period of time" (Department of Army 1985: 29). Typically perimeter bunkers are made from plywood and are used for above ground protective security positions. The construction would have included a semi-enclosed bunker that rested atop the support beams. The structure identified in the field has only the support beams remaining; the bunker portion of the structure is no longer present.

Deliberate Fighting Positions
"Deliberate fighting positions are modified hasty positions[2] prepared during periods of relaxed enemy pressure" (Department of Army 1985: 5). One man fighting positions, also known has foxholes, were the most common deliberate position identified during field survey. Most of these features measured 5-6ft in length, 2ft wide, and 1-2ft deep and were associated with areas impacted by military training.

Summary
Survey and sub-surface testing failed to identify any National Register eligible cultural resources within the boundaries of the proposed project's area of potential effect. The project area has been heavily disturbed by previous military activities, evident through interspersed foxholes, bunkers, UXO, and military training debris found throughout the surveyed area. No historic properties will be affected by the proposed project.

[2] "When time and materials are limited, troops in contact with the enemy use a hasty fighting position located behind whatever cover are available. It should provide frontal protection from direct fire while allowing fire to the front and oblique" (Department of Army, 1985:3).

Figure 30. One man fighting position with a low parapet made of stones

Figure 31. One man fighting position with a low parapet made of soil

3.2 Demolition Range Project

USAG-AK has proposed a Demolition Range to be sited on the south side of Quarry Road neighboring Bravo Battery in the Yukon Training Area (Figures 32 and 33). This range measures approximately 153m by 214m and will be used primarily for C4 munitions (one pound plastic blocks) and a variety of explosives used with in the military system.

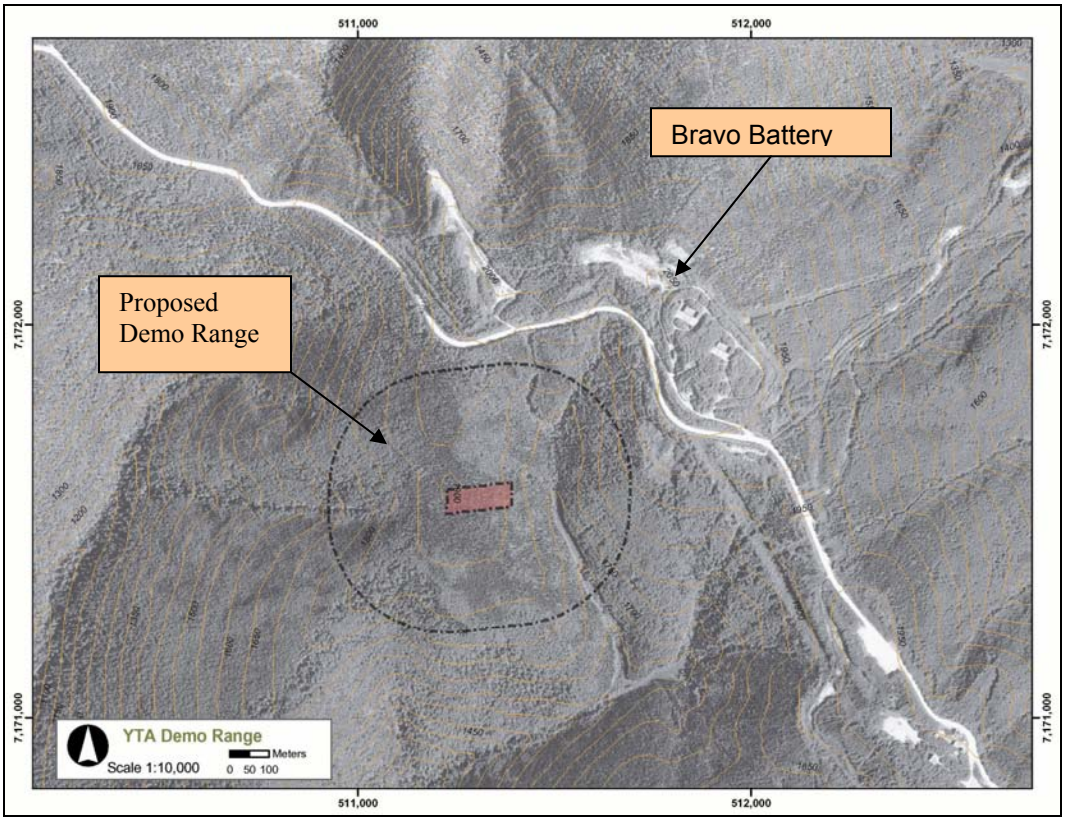

Figure 32. Bravo Battery and Demo Range Construction Proposal

Survey and Field methods

There is one known prehistoric archeological site (XBD-095) located within the general vicinity, but outside of, the project's APE. Reconnaissance efforts by the 2002 and 2003 archaeological crews relocated the sites, but did not locate any additional cultural material.

Archaeological pedestrian surveys were conducted in July 2003 by four CEMML archaeologists. The survey was carried out using parallel transects spaced at a maximum of 20m. Transect survey units were

Figure 33. Bravo Battery facing north, note preexisting disturbance

partitioned according to existing roads and trails. If existing roads did not provide for practical unit boundaries, a one square kilometer work unit was defined. During initial review of the proposed project area, high probability areas (e.g., lake margins, ridges, benches adjacent to steeper slopes) were identified for systematic sub-surface testing. Shovel tests were approximately 50cm x 50cm, and soils were screened through ¼" hardware cloth.

Summary

Survey and sub-surface testing failed to identify any cultural resources within the boundaries of the proposed project's area of potential effect. The probability of locating intact archaeological sites was low and disturbance in the project area was substantial due to previous military training and vehicular access. No historic properties will be affected by the proposed project.

3.3 Barrow Pit Expansion Project

USAG-AK has proposed to enlarge an existing barrow pit located at the junction of Skyline and Quarry Roads in the Yukon Training Area (YTA) at Fort Wainwright (Figure 34). The footprint of the barrow pit will be expanded to support the upgrade of Johnson Road and the development of firing points in the YTA. An estimated 100,000 cubic yards of material will be needed to support these projects.

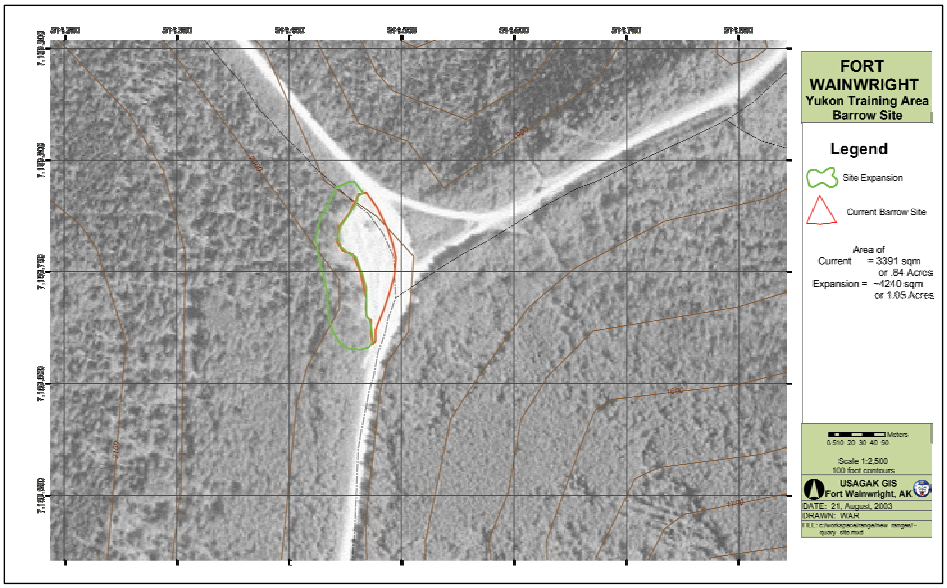

Figure 34. Barrow pit project area

Survey and Field methods

Archaeological pedestrian surveys of the project area were conducted in August 2003 by two CEMML archaeologists. Parallel transects spaced at a maximum of 20m were walked. Transect survey units were partitioned according to existing roads and trails. During initial review of the proposed project area, high probability areas (e.g., lake margins, ridges, benches adjacent to steeper slopes) were identified for systematic sub-surface testing. Shovel tests were approximately 50cm x 50cm, and soils were screened through ¼" hardware cloth.

Summary

Survey and sub-surface testing failed to identify any cultural resources within the boundaries of the proposed project's area of potential effect. No historic properties will be affected by the proposed project.

Figure 35. View of project area

3.4 Firebird Assault Strip, Firing Point Project

USAG-AK has proposed to construct a firing point in an area previously used as an artillery firing point and bivouac area, sited on the east side of Johnson Road adjacent to the Firebird Assault Strip/Drop Zone in the Yukon Training Area at Fort Wainwright Figure 36).

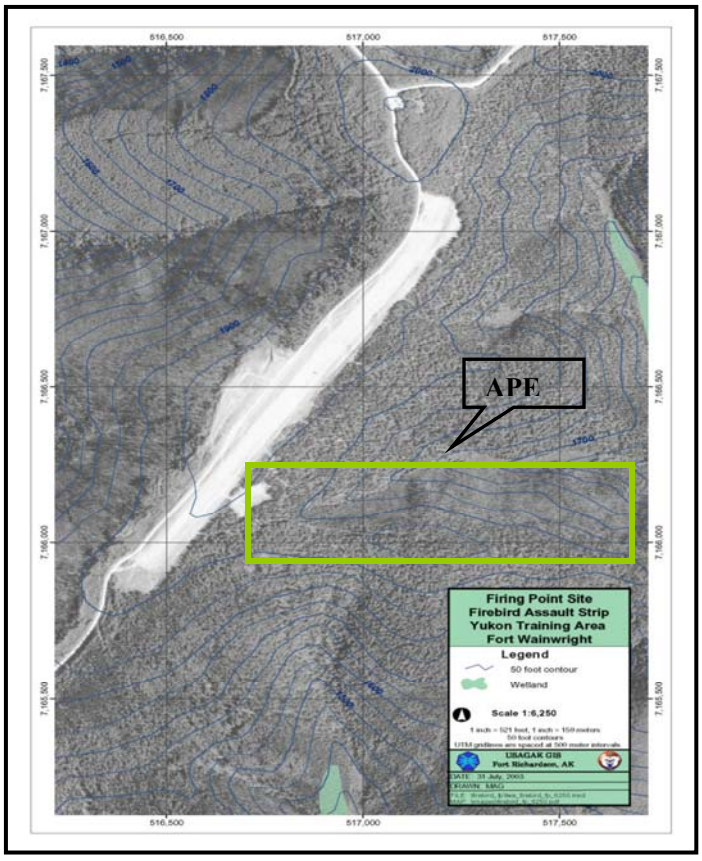

Figure 36. Firebird firing point project area

Construction of the firing point will support the 172nd Separate Infantry Brigade (SIB) transformation to a Stryker Brigade Combat Team (SBCT) and the addition of the 155mm artillery pieces. The undertaking will consist of leveling off and hardening a pad approximately 300m x 100m. An associated bivouac area will be created in conjunction with the pad to accommodate up to 10 battery support vehicles.

Survey and Field Methods

There is one known prehistoric archeological site (XBD-095) located within the general vicinity, but outside of, this project's APE. Reconnaissance efforts from the 2002 and 2003 archaeological crews failed to relocate the site.

Archaeological pedestrian surveys were conducted in August 2003 by four CEMML archaeologists. The area was surveyed using parallel transects spaced at a maximum of 20m. Transect survey units were partitioned according to existing roads and trails. If existing roads did not provide for practical unit boundaries, a one square kilometer work unit was defined. During initial review of the proposed project area, high probability areas (e.g., lake margins, ridges, benches adjacent to steeper slopes) were identified for systematic sub-surface testing. Shovel tests were approximately 50cm x 50cm, and soils were screened through ¼" hardware cloth.

Figure 37. View of project area from Quarry Road

Summary

Survey and sub-surface testing failed to identify any cultural resources within the boundaries of the proposed project's area of potential effect. No historic properties will be affected by this project.

3.5 Infantry Squad Battle Course (ISBC)

USAG-AK has proposed to construct an Infantry Squad Battle Course (ISBC) to be sited on the existing Mount Assault Course (MAC), located south of Brigadier Road (Figure 38).

The ISBC will be used to conduct basic offense and defense mission oriented training exercises. Weapons fired on this course will be non-duded, small arms ammunition (e.g. 9mm tracer, AT4 sub-caliber; 5.56mm, M-16; 7.62mm, M-60 machine gun; and 40mm training practice rounds of orange smoke, M-203).

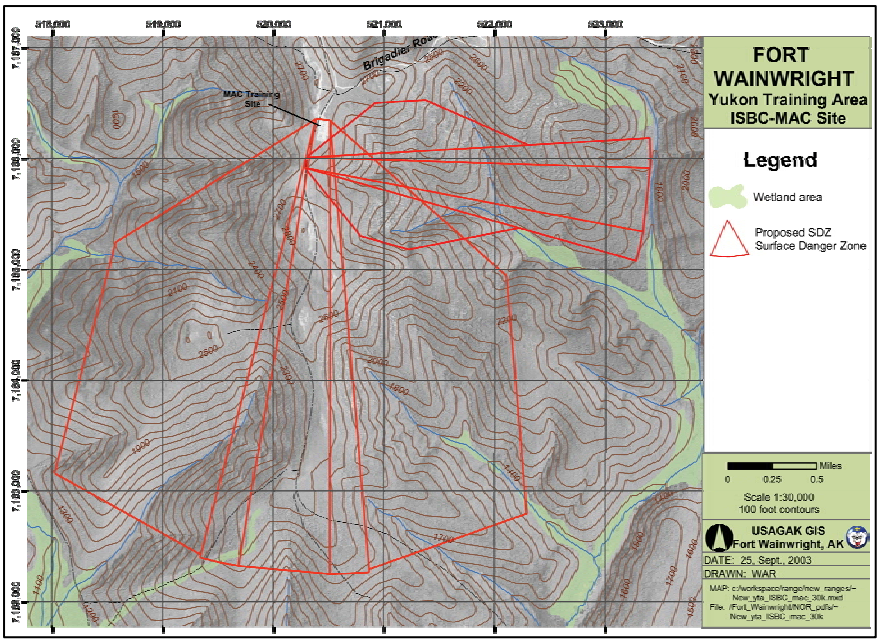

Figure 38. ISBC MAC Training Site project area

Survey and Field Methods

Archaeological pedestrian surveys were conducted in July and September 2003. Four CEMML archaeologists surveyed the proposed undertaking using parallel transects spaced at a maximum of 20m. Transect survey units were partitioned according to existing roads and trails. If existing roads did not provide for practical unit boundaries, a one square kilometer work unit was defined. During initial review of the proposed project area, high probability areas (e.g., lake margins, ridges, benches adjacent to steeper slopes) were identified for systematic sub-surface testing. Shovel tests were approximately 50cm x 50cm, and soils were screened through ¼" hardware cloth.

Figure 39. ISBC MAC Training Site project area

Summary

Survey and sub-surface testing failed to identify any cultural resources within the boundaries of the proposed project's area of potential effect. No historic properties will be affected by the proposed project.

3.6 Maneuver Corridor Test Site

USAG-AK has proposed to establish a Maneuver Corridor test site to examine the effects of different landscape treatments near Charlie Battery in Fort Wainwright's Yukon Training Area (Figures 40-42). The information obtained from these tests will be used to create military training areas where vehicles may operate off established road systems. The primary vehicle considered in these tests is the Stryker, which is a light armored, wheeled vehicle approximately nine feet wide. Removal of trees via a combination of hand thinning and hydro-axing of the area will be employed to create the test site.

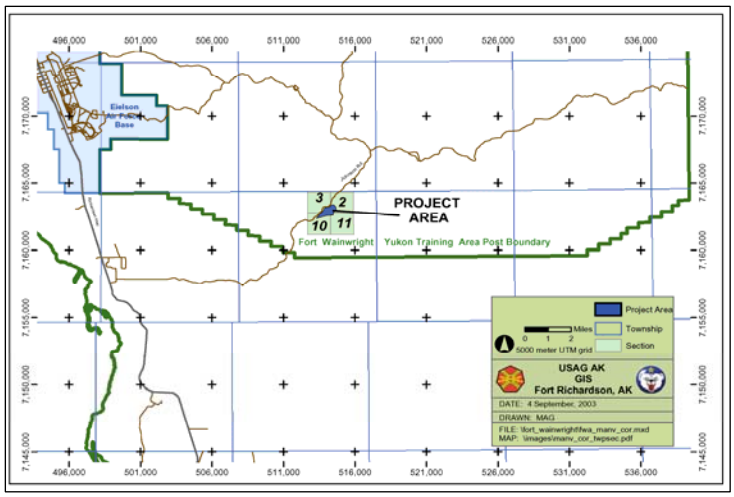

Figure 40. Maneuver Corridor Project Area

Survey and Field Methods

Archaeological pedestrian surveys were conducted in June 2003. Four CEMML archaeologists surveyed the proposed undertaking using parallel transects spaced at a maximum of 20m. Transect survey units were partitioned according to existing roads and trails. If existing roads did not provide for practical unit boundaries, a one square kilometer work unit was defined. During initial review of the proposed project area, high probability areas (e.g., lake margins, ridges, benches adjacent to steeper slopes) were identified for systematic sub-surface testing. Shovel tests were approximately 50cm x 50cm, and soils were screened through ¼" hardware cloth.

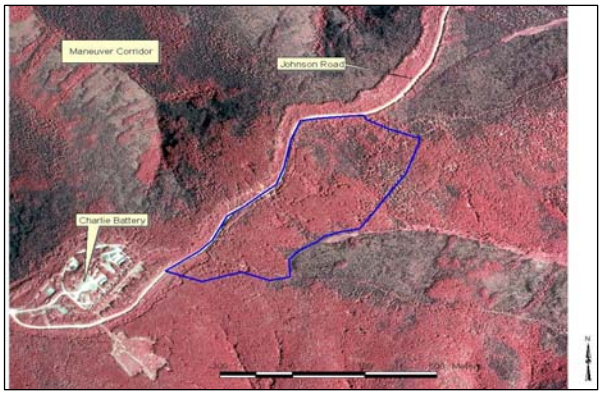

Figure 41. Aerial view of Maneuver Corridor project area

Summary

Survey and sub-surface testing failed to identify any cultural resources within the boundaries of the proposed project's area of potential effect. No historic properties will be affected by the proposed project.

Figure 42. View of the Maneuver Corridor project area